

Canadian Journal of Microbiology

Contents
Volume 45, 1999

Revue canadienne de microbiologie

Sommaire
Volume 45, 1999

January / janvier

ARTICLES

- P.L. Worsham and M.R. Sowers Isolation of an asporogenic (*spoOA*) protective antigen-producing strain of *Bacillus anthracis* 1
- P. Rossi and M. Aragno Analysis of bacteriophage inactivation and its attenuation by adsorption onto colloidal particles by batch agitation techniques 9
- X.-Z. Li and K. Poole Organic solvent-tolerant mutants of *Pseudomonas aeruginosa* display multiple antibiotic resistance 18
- S. Santiwatanakul and N.R. Krieg Isolation and purification of a *Campylobacter upsaliensis* autolysin 23
- M. Cytryńska, I. Wojda, M. Frajnt, and T. Jakubowicz PKA from *Saccharomyces cerevisiae* can be activated by cyclic AMP and cyclic GMP 31
- M. Azuma, S. Torii, J. Kato, and H. Ooshima Cell extensions in *pkc1* mutants of *Saccharomyces cerevisiae* 38
- S.M. Monti, V. Fogliano, G. Randazzo, G. Peluso, A. Logrieco, and A. Ritieni Polyclonal antibodies against fusaproliferin 45
- M.S. Whiting, S.L. Gares, W.M. Ingledew, and B. Ziola Brewing spoilage lactobacilli detected using monoclonal antibodies to bacterial surface antigens 51
- T. Hosoi, A. Ametani, K. Kiuchi, and S. Kaminogawa Changes in fecal microflora induced by intubation of mice with *Bacillus subtilis* (*natto*) spores are dependent upon dietary components 59
- H. Urakawa, K. Kita-Tsukamoto, and K. Ohwada Restriction fragment length polymorphism analysis of psychrophilic and psychrotrophic *Vibrio* and *Photobacterium* from the north-western Pacific Ocean and Otsuchi Bay, Japan 67
- G.D. Inglis, L.J. Yanke, L.M. Kawchuk, and T.A. McAllister The influence of bacterial inoculants on the microbial ecology of aerobic spoilage of barley silage 77

NOTES

- B.J. Bromke and E. Venuti A basal-defined medium for the study of proteolytic activity of *Serratia marcescens* 88
- S. Mediratta and K. Essani The replication cycle of tanapox virus in owl monkey kidney cells 92
- Announcement / Avis iii

February / février

REVIEW / SYNTHÈSE

- I. Suzuki Oxidation of inorganic sulfur compounds: Chemical and enzymatic reactions 97

ARTICLES

- G. Thouand, P. Bauda, J. Oudot, G. Kirsch, C. Sutton, and J.F. Vidalie Laboratory evaluation of crude oil biodegradation with commercial or natural microbial inocula 106
- S. Macnaughton, J.R. Stephen, Y.-J. Chang, A. Peacock, C.A. Flemming, K.T. Leung, and D.C. White Characterization of metal-resistant soil eubacteria by polymerase chain reaction – denaturing gradient gel electrophoresis with isolation of resistant strains 116
- N. Mutoh, C.W. Nakagawa, and K. Yamada The role of catalase in hydrogen peroxide resistance in fission yeast *Schizosaccharomyces pombe* 125
- J.D. Van Hamme and O.P. Ward Influence of chemical surfactants on the biodegradation of crude oil by a mixed bacterial culture 130
- J.S. Buyer, D.P. Roberts, and E. Russek-Cohen Microbial community structure and function in the spermosphere as affected by soil and seed type 138

J. Fröhlich, H. Sass, H.-D. Babenzien, T. Kuhnigk, A. Varma, S. Saxena, C. Nalepa, P. Pfeiffer, and H. König	Isolation of <i>Desulfovibrio intestinalis</i> sp. nov. from the hindgut of the lower termite <i>Mastotermes darwiniensis</i>	145
J.N. Manch-Citron, A. Dey, J.B. Ewell, and N.Y. Nguyen	Mutant analysis of <i>Prevotella</i> sp. <i>plaA-lacZ</i> fusion protein expression in <i>Escherichia coli</i> : support for an essential role of the stem-loop	153
K. Heesche-Wagner, T. Schwarz, and M. Kaufmann	Phenol degradation by an enterobacterium: a <i>Klebsiella</i> strain carries a TOL-like plasmid and a gene encoding a novel phenol hydroxylase	162
M.-A. Lachance, J.M. Bowles, W.T. Starmer, and J.S.F. Barker	<i>Kodamaea kakaduensis</i> and <i>Candida tolerans</i> , two new ascomycetous yeast species from Australian <i>Hibiscus</i> flowers	172
K.A. Billingsley, S.M. Backus, and O.P. Ward	Production of metabolites from chlorobiphenyls by resting cells of <i>Pseudomonas</i> strain LB400 after growth on different carbon sources	178
L.E. McHolland and D.R. Caldwell	Pyruvate metabolism by <i>Anaplasma marginale</i> in cell-free culture	185

March / mars

ARTICLES

M.B. Herrington and N.T. Chirwa	Growth properties of a <i>folA</i> null mutant of <i>Escherichia coli</i> K12	191
J.K. Dhillon and N. Shivaraman	Biodegradation of cyanide compounds by a <i>Pseudomonas</i> species (S1)	201
P. Poupin, J.J. Godon, E. Zumstein, and N. Truffaut	Degradation of morpholine, piperidine, and pyrrolidine by mycobacteria: evidences for the involvement of a cytochrome P450	209
Z. Ignatova, A. Gousterova, G. Spassov, and P. Nedkov	Isolation and partial characterisation of extracellular keratinase from a wool degrading thermophilic actinomycete strain <i>Thermoactinomyces candidus</i>	217
T. Liengen	Conversion factor between acetylene reduction and nitrogen fixation in free-living cyanobacteria from high arctic habitats	223
A.E.C. Nascimento Chiriboga, W.V. Guimarães, M.C.D. Vanetti, and E.F. Araújo	Detection of <i>Lawsonia intracellularis</i> in faeces of swine from the main producing regions in Brazil	230
A. Charest, J.-G. Bisaillon, F. Lépine, and R. Beaudet	Removal of phenolic compounds from a petrochemical effluent with a methanogenic consortium	235
B.G. Blair and K.L. Anderson	Regulation of cellulose-inducible structures of <i>Clostridium cellulovorans</i>	242
M.L. De Boer, W.W.S. Kum, and A.W. Chow	<i>Staphylococcus aureus</i> isogenic mutant, deficient in toxic shock syndrome toxin-1 but not staphylococcal enterotoxin A production, exhibits attenuated virulence in a tampon-associated vaginal infection model of toxic shock syndrome	250
C. Chauret, S. Springthorpe, and S. Sattar	Fate of <i>Cryptosporidium</i> oocysts, <i>Giardia</i> cysts, and microbial indicators during wastewater treatment and anaerobic sludge digestion	257

NOTES

J.J. Semanckek, D.A. Golden, and R.C. Williams	Growth and survival of uninjured and sublethally heat-injured <i>Escherichia coli</i> O157:H7 on beef extract medium as influenced by package atmosphere and storage temperature	263
Z. Yu and W.W. Mohn	Killing two birds with one stone: simultaneous extraction of DNA and RNA from activated sludge biomass	269
B.H. Bleakley and X. Chen	Survival of insect pathogenic and human clinical isolates of <i>Photobacterium luminescens</i> in previously sterile soil	273

April / avril

ARTICLES

J.W. Conlan, A.D. Cox, R. KuoLee, A. Webb, and M.B. Perry	Parenteral immunization with a glycoconjugate vaccine containing the O157 antigen of <i>Escherichia coli</i> O157:H7 elicits a systemic humoral immune response in mice, but fails to prevent colonization by the pathogen	279
S.J. Barnett, Y. Alami, I. Singleton, and M.H. Ryder	Diversification of <i>Pseudomonas corrugata</i> 2140 produces new phenotypes altered in GC-FAME, BIOLOG, and in vitro inhibition profiles and taxonomic identification	287
K.T. Nguyen, E.J. Hansen, and M.A. Farinha	Construction of a genomic map of <i>Moraxella (Branhamella) catarrhalis</i> ATCC 25238 and physical mapping of virulence-associated genes	299

K.M. Fagerbakke, S. Norland, and M. Haldal	The inorganic ion content of native aquatic bacteria	304
T.M. Loveless and P.E. Bishop	Identification of genes unique to Mo-independent nitrogenase systems in diverse diazotrophs	312
K. Tawfiki Hajji, F. Lépine, J.-G. Bisailon, and R. Beaudet	Simultaneous removal of phenol, <i>ortho</i> - and <i>para</i> -cresol by mixed anaerobic consortia	318
H. Brim, H. Heuer, E. Krögerrecklenfort, M. Mergeay, and K. Smalla	Characterization of the bacterial community of a zinc-polluted soil	326

NOTES

C. Jacoud, D. Job, P. Wadoux, and R. Bally	Initiation of root growth stimulation by <i>Azospirillum lipoferum</i> CRT1 during maize seed germination	339
C. Tamayo, J. Ubeda, and A. Briones	Relationship between H ₂ S-producing strains of wine yeast and different fermentation conditions	343
Y.-Tien Liu, C.-G. Chen, D.-C. Chao, F. Lee, C.-L. Liao, H.-K. Sytwu, C.-F. Chou, and D.-D. Ji	Sequence analysis of the <i>Gluconobacter oxydans</i> RecA protein and construction of a <i>recA</i> -deficient mutant	347

May / mai

ARTICLES

P.C. Braun	Nutrient uptake by <i>Candida albicans</i> : the influence of cell surface mannoproteins	353
D.C. Bressler, B.K. Leskiw, and P.M. Fedorak	Biodegradation of benzothiophene sulfones by a filamentous bacterium	360
S. Tongpim and M.A. Pickard	Cometabolic oxidation of phenanthrene to phenanthrene <i>trans</i> -9,10-dihydrodiol by <i>Mycobacterium</i> strain S1 growing on anthracene in the presence of phenanthrene	369
L.M. Gieg, D.L. Coy, and P.M. Fedorak	Microbial mineralization of diisopropanolamine	377
S. Kumar, K. Sivasithamparam, J.S. Gill, and M.W. Sweetingham	Temperature and water potential effects on growth and pathogenicity of <i>Rhizoctonia solani</i> AG-11 to lupin	389
C.-H. Liao, L. Revear, A. Hotchkiss, and B. Savary	Genetic and biochemical characterization of an exopolygalacturonase and a pectate lyase from <i>Yersinia enterocolitica</i>	396

NOTES

P.V. Bünz, M. Buck, S. Hebenbrock, and P. Fortnagel	Stability of mutations in a <i>Sphingomonas</i> strain	404
R.B. Caligorne, M.A. Resende, E. Paiva, and V. Azevedo	Use of RAPD (random amplified polymorphic DNA) to analyse genetic diversity of dematiaceous fungal pathogens	408
E. de Alteriis, P.M. Alepuz, F. Estruch, and P. Parascandola	Clues to the origin of high external invertase activity in immobilized growing yeast: prolonged <i>SUC2</i> transcription and less susceptibility of the enzyme to endogenous proteolysis	413
M. Sahin-Tóth, Z. Lengyel, and H. Tsunekawa	Cloning, sequencing, and expression of <i>cscA</i> invertase from <i>Escherichia coli</i> B-62	418
L.A. Sarubbo, A.L.F. Porto, and G.M. Campos-Takaki	The use of babassu oil as substrate to produce bioemulsifiers by <i>Candida lipolytica</i>	423
J.-S. Zhao and O.P. Ward	Microbial degradation of nitrobenzene and mono-nitrophenol by bacteria enriched from municipal activated sludge	427

June / juin

ARTICLES

J.W. Buck and J.H. Andrews	Role of adhesion in the colonization of barley leaves by the yeast <i>Rhodosporidium toruloides</i>	433
Y. Bashan, A. Rojas, and M.E. Puente	Improved establishment and development of three cactus species inoculated with <i>Azospirillum brasilense</i> transplanted into disturbed urban desert soil	441
J.-P. Chessa, G. Feller, and C. Gerday	Purification and characterization of the heat-labile α -amylase secreted by the psychrophilic bacterium TAC 240B	452

K.L. Londry, J.M. Sufliata, and R.S. Tanner Cresol metabolism by the sulfate-reducing bacterium <i>Desulfotomaculum</i> sp. strain Groll	458
J.O. Silva-Werneck, M.T. De-Souza, J.M.C. de S. Dias, and B.M. Ribeiro Characterization of <i>Bacillus thuringiensis</i> subsp. <i>kurstaki</i> strain S93 effective against the fall armyworm (<i>Spodoptera frugiperda</i>)	464
T.M. Swan and K. Watson Stress tolerance in a yeast lipid mutant: membrane lipids influence tolerance to heat and ethanol independently of heat shock proteins and trehalose	472
L. Swenarchuk, P. Harakidas, and A. Cochrane Regulated expression of HIV-1 Rev function in mammalian cell lines	480
J.P. Sampaio Utilization of low molecular weight aromatic compounds by heterobasidiomycetous yeasts: taxonomic implications	491
Z. Yu and W.W. Mohn Isolation and characterization of thermophilic bacteria capable of degrading dehydroabietic acid	513
M. Molina, R. Araujo, and R.E. Hodson Cross-induction of pyrene and phenanthrene in a <i>Mycobacterium</i> sp. isolated from polycyclic aromatic hydrocarbon contaminated river sediments	520

NOTES

D.W. Dingman Conjugative transposition of Tn916 and Tn925 in <i>Bacillus popilliae</i>	530
M.K. Homonylo-McGavin, S.F. Lee, and G.H. Bowden Subcellular localization of the <i>Streptococcus mutans</i> P1 protein C terminus	536

July / juillet

ARTICLES

J.S. White, J.M. Tobin, and J.J. Cooney Organotin compounds and their interactions with microorganisms	541
K. Chatila, S. Demers, B. Mostajir, J.-P. Chanut, and P. Monfort An endogenous periodicity exhibited in the activity of a natural bacterioplankton community isolated in mesocosms	555
T. Christian and D.M. Downs Defects in pyruvate kinase cause a conditional increase of thiamine synthesis in <i>Salmonella typhimurium</i>	565
T. Liengen Environmental factors influencing the nitrogen fixation activity of free-living terrestrial cyanobacteria from a high arctic area, Spitsbergen	573
G.B. Ouellette, H. Chamberland, A. Goulet, M. Lachapelle, and J.-G. Lafontaine Fine structure of the extracellular sheath and cell walls in <i>Ophiostoma novo-ulmi</i> growing on various substrates	582
J.-L. Tholozan and J. Jacquemont Physiological response of <i>Pectinatus frisingensis</i> , a beer spoilage bacterium, to mild heat treatments	598

NOTES

T.F. Bruno, D.E. Woods, D.G. Storey, and C.H. Mody Recombinant <i>Pseudomonas</i> exoenzyme S and exoenzyme S from <i>Pseudomonas aeruginosa</i> DG1 share the ability to stimulate T lymphocyte proliferation	607
J.D. Nairn and C.P. Chanway Recovery of a rhizosphere-colonizing GEM from inside wheat roots	612
S. Langley and T.J. Beveridge Metal binding by <i>Pseudomonas aeruginosa</i> PAO1 is influenced by growth of the cells as a biofilm	616
S.L. Pfaller, S.D. Sutton, and B.K. Kinkle <i>Sphingomonas</i> sp. strain Lep1: an aerobic degrader of 4-methylquinoline	623
M.A. Pickard, H. Vandertol, R. Roman, and R. Vazquez-Duhalt High production of ligninolytic enzymes from white rot fungi in cereal bran liquid medium	627
D.M. Serafini and H.E. Schellhorn Endonuclease III and endonuclease IV protect <i>Escherichia coli</i> from the lethal and mutagenic effects of near-UV irradiation	632

August / août

ARTICLES

S. Ando and T. Yokoyama Phylogenetic analyses of <i>Bradyrhizobium</i> strains nodulating soybean (<i>Glycine max</i>) in Thailand with reference to the USDA strains of <i>Bradyrhizobium</i>	639
---	-----

P.L. Flanary, R.D. Allen, L. Dons, and S. Kathariou Insertional inactivation of the <i>Listeria monocytogenes</i> cheYA operon abolishes response to oxygen gradients and reduces the number of flagella	646
A. Lomascolo, L. Lesage-Meessen M. Labat, D. Navarro, M. Delattre, and M. Asther Enhanced benzaldehyde formation by a monokaryotic strain of <i>Pycnoporus cinnabarinus</i> using a selective solid adsorbent in the culture medium	653
R.S. Negm and T.G. Pistole The porin OmpC of <i>Salmonella typhimurium</i> mediates adherence to macrophages	658
M.S. Whiting, W.M. Ingledew, S.Y. Lee, and B. Ziola Bacterial surface antigen-specific monoclonal antibodies used to detect beer spoilage pediococci	670
K.J. Wilson, A. Parra, and L. Botero Application of the GUS marker gene technique to high-throughput screening of rhizobial competition	678
W.J. Middelhoven, G. Scorzetti, and J.W. Fell <i>Trichosporon guehoae</i> sp.nov., an anamorphic basidiomycetous yeast	686
M.B. Habash, H.C. Van der Mei, H.J. Busscher, and G. Reid The effect of water, ascorbic acid, and cranberry derived supplementation on human urine and uropathogen adhesion to silicone rubber	691
B. Petrovska, E. Winkelhausen, and S. Kuzmanova Glycerol production by yeasts under osmotic and sulfite stress	695
H. Bredholt and K. Eimhjellen Induction and development of the oil emulsifying system in an alkane oxidizing <i>Rhodococcus</i> species	700
P. Payment Poor efficacy of residual chlorine disinfectant in drinking water to inactivate waterborne pathogens in distribution systems	709
NOTE	
J.G. Streeter and A. Bhagwat Biosynthesis of trehalose from maltooligosaccharides in Rhizobia	716

September / septembre

ARTICLES

J.W. Conlan, R. KuoLee, A. Webb, and M.B. Perry <i>Salmonella landau</i> as a live vaccine against <i>Escherichia coli</i> O157:H7 investigated in a mouse model of intestinal colonization	723
M. Yoh, E.K. Frimpong, S.P. Voravuthikunchai, and T. Honda Effect of subinhibitory concentrations of antimicrobial agents (quinolones and macrolide) on the production of verotoxin by enterohemorrhagic <i>Escherichia coli</i> O157:H7	732
C.E. Höglund and T.A.B. Stenström Survival of <i>Cryptosporidium parvum</i> oocysts in source separated human urine	740
L.B. Jugnia, R.D. Tadonlélé, T. Sime-Ngando, J. Devaux, and C. Andrivon Bacterial population dynamics, production, and heterotrophic activity in a recently formed reservoir	747
S. Restrepo, T.L. Valle, M.C. Duque, and V. Verdier Assessing genetic variability among Brazilian strains of <i>Xanthomonas axonopodis</i> pv. <i>manihotis</i> through restriction fragment length polymorphism and amplified fragment length polymorphism analyses	754
J. Beauséjour, C. Goyer, J. Vachon, and C. Beaulieu Production of thaxtomin A by <i>Streptomyces scabies</i> strains in plant extract containing media	764
D. Wipf, A. Fribourg, J.C. Munch, B. Botton, and F. Buscot Diversity of the internal transcribed spacer of rDNA in morels	769
B. Ziola, S.L. Gares, B. Lorrain, L. Gee, W.M. Ingledew, and S.Y. Lee Epitope mapping of monoclonal antibodies specific for the directly cross-linked meso-diaminopimelic acid peptidoglycan found in the anaerobic beer spoilage bacterium <i>Pectinatus cerevisiiphilus</i>	779

NOTES

R.P. Burchard β -lactam antibiotic selection of non-swarming mutants of <i>Flexibacter maritimus</i>	786
A. M. Kropinski and M.J. Sibbald Transfer RNA genes and their significance to codon usage in the <i>Pseudomonas aeruginosa</i> lamboid bacteriophage D3	791
P. Roeckel-Drevet, J. Tourvieille, J.R. Drevet, V. Says-Lesage, P. Nicolas, and D. Tourvieille de Labrouhe Development of a polymerase chain reaction diagnostic test for the detection of the biotrophic pathogen <i>Plasmopara halstedii</i> in sunflower	797

October / octobre

ARTICLES

- M.E. Guerzoni, M. Ferruzzi, F. Gardini, and R. Lanciotti Combined effects of ethanol, high homogenization pressure, and temperature on cell fatty acid composition in *Saccharomyces cerevisiae* 805
- J. Dhillon, S. Chhatre, R. Shanker, and N. Shivaraman Transformation of aliphatic and aromatic nitriles by a nitrilase from *Pseudomonas* sp. 811
- A.S.D. Pang, J.L. Gringorten, and C. Bai Activation and fragmentation of *Bacillus thuringiensis* δ -endotoxin by high concentrations of proteolytic enzymes 816
- M. Goñi-Urriza, M. Capdepuy, N. Raymond, C. Quentin, and P. Caumette Impact of an urban effluent on the bacterial community structure in the Arga River (Spain), with special reference to culturable Gram-negative rods 826
- N. Kawahara, H. Ikatsu, H. Kawata, S. Miyoshi, K. Tomochika, and S. Sinoda Purification and characterization of 2-ethoxyphenol-induced cytochrome P450 from *Corynebacterium* sp. strain EP1 833
- R.M. Zablotowicz, K.T. Leung, T. Alber, M.B. Cassidy, J.T. Trevors, H. Lee, L. Veldhuis, and J.C. Hall Degradation of 2,4-dinitrophenol and selected nitroaromatic compounds by *Sphingomonas* sp. UG30 840
- H. Ceri, S. Schmidt, M.E. Olson, J.C. Nickel, and H. Benediktsson Specific mucosal immunity in the pathophysiology of bacterial prostatitis in a rat model 849
- M.J. Bidochka, S. Burke, and L. Ng Extracellular hydrolytic enzymes in the fungal genus *Verticillium*: adaptations for pathogenesis 856

NOTES

- S. Balaji, A. Sujatha, and I. Kalyanasundaram A simple rapid procedure for obtaining axenic cultures from monoxenic cultures of myxomycete plasmodia 865
- E. Dannaoui, F. Persat, M.-F. Monier, E. Borel, M.-A. Piens, and S. Picot Use of spectrophotometric reading for in vitro antifungal susceptibility testing of *Aspergillus* spp. 871
- M.C. Furlaneto, E.G. Paão, E.G. da S. Pinto, and M.H.P. Fungaro Transformation of the entomopathogenic fungus *Metarhizium flavoviride* to high resistance to benomyl 875
- L. Halda-Alija and T.C. Johnston Diversity of culturable heterotrophic aerobic bacteria in pristine stream bed sediments 879
- M.-A. Han, H.-S. Lee, C.-I. Cheon, K.-H. Min, and M.-S. Lee Cloning and analysis of the *aroB* gene encoding dehydroquinase synthase from *Corynebacterium glutamicum* 885

November / novembre

ARTICLES

- H. Gaudreau, C.P. Champagne, J. Conway, and R. Degré Effect of ultrafiltration of yeast extracts on their ability to promote lactic acid bacteria growth 891
- S. Hallier-Soulier, V. Ducrocq, and N. Truffaut Conjugal transfer of a TOL-like plasmid and extension of the catabolic potential of *Pseudomonas putida* F1 898
- A.J. Telang, G.E. Jenneman, and G. Voordouw Sulfur cycling in mixed cultures of sulfide-oxidizing and sulfate- or sulfur-reducing oil field bacteria 905
- A. Uzunovic, D.-Q. Yang, P. Gagné, C. Breuil, L. Bernier, A. Byrne, M. Gignac, and S.H. Kim Fungi that cause sapstain in Canadian softwoods 914
- F.O. Asiegbu, M. Kacprzak, G. Daniel, M. Johansson, J. Stenlid, and M. Mañka Biochemical interactions of conifer seedling roots with *Fusarium* spp. 923
- L.B. Jeffs, I.J. Xavier, R.E. Matai, and G.G. Khachatourians Relationships between fungal spore morphologies and surface properties for entomopathogenic members of the genera *Beauveria*, *Metarhizium*, *Paecilomyces*, *Tolypocladium*, and *Verticillium* 936
- P. Valente, J.P. Ramos, and O. Leoncini Sequencing as a tool in yeast molecular taxonomy 949
- E.K. Hani, D. Ng, and V.-L. Chan Arginine biosynthesis in *Campylobacter jejuni* TGH9011: determination of the *argCOBD* cluster 959

NOTES

- J.-H. Liu, B.L. Selinger, C.-F. Tsai, and K.-J. Cheng Characterization of a *Neocallimastix patriciarum* xylanase gene and its product 970
- J.W. Conlan, R. KuoLee, A. Webb, and M.B. Perry Immunosuppression by a corticosteroid fails to exacerbate *Helicobacter pylori* infection in a mouse model of gastric colonization 975

December / décembre

ARTICLES

- C. Gusils, S.N. González, and G. Oliver Some probiotic properties of chicken lactobacilli 981
- V. Portrait, S. Gendron-Gaillard, G. Cottenceau, and A.M. Pons Inhibition of pathogenic *Salmonella enteritidis* growth mediated by *Escherichia coli* microcin J25 producing strains 988
- M.R. Shakibaie, B.P. Kapadnis, P. Dhakephalkar, and B.A. Chopade Removal of silver from photographic wastewater effluent using *Acinetobacter baumannii* BL54 995
- H. Urakawa, K. Kita-Tsukamoto, and K. Ohwada 16S rDNA restriction fragment length polymorphism analysis of psychrotrophic vibrios from Japanese coastal water 1001
- J.A. Colmer and A.N. Hamood Expression of *ptxR* and its effect on *tox*A and *regA* expression during the growth cycle of *Pseudomonas aeruginosa* strain PAO1 1008
- S. Rioux, C. Galarneau, J. Harel, J. Frey, J. Nicolet, M. Kobisch, J.D. Dubreuil, and M. Jacques Isolation and characterization of mini-Tn10 lipopolysaccharide mutants of *Actinobacillus pleuropneumoniae* serotype 1 1017
- D.F. Niven, A. Ekins, and A.A.-W. Al-Samaurai Effects of iron and manganese availability on growth and production of superoxide dismutase by *Streptococcus suis* 1027
- L.O. Adewoye and E.A. Worobec Multiple environmental factors regulate the expression of the carbohydrate-selective OprB porin of *Pseudomonas aeruginosa* 1033

NOTES

- R. Morosoli, S. Ostiguy, and C. Dupont Effect of carbon source, growth and temperature on the expression of the *sec* genes of *Streptomyces lividans* 1326 1043
- T. Menéndez, M. Pérez, and A. Alvarez Antigenic and genetic characterization of a putative hybrid transferrin-binding protein B from *Neisseria meningitidis* 1050
- J.N.A. De Croos and M.J. Bidochka Effects of low temperature on growth parameters in the entomopathogenic fungus *Metarhizium anisopliae* 1055

Note of appreciation / Note de reconnaissance

iii

Author index for Volume 45 / Index des auteurs pour le volume 45

AI-1

Subject index for Volume 45 / Index des matières pour le volume 45

SI-1

Contents for Volume 45 / Sommaire pour le volume 45

C-1